DOCUMENT RESUME

ED 331 649 RC 017 676

AUTHOR Cleland, Charles L.
TITLE An Index of Social Connectedness for Non-Metro Counties in Six Southern States.
PUB DATE 6 Feb 90
NOTE 13p.; Paper presented at Southern Rural Sociological Association Meeting (Little Rock, AR, February 6, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Community Relations; Delivery Systems; Economic Change; *Measurement Techniques; Organizational Change; *Quality of Life; *Rural Areas; *Rural Development; Rural Sociology
IDENTIFIERS Counties; Nonmetropolitan Areas; *Social Connectedness

ABSTRACT

Networking communities and school districts is crucial for effectively sharing resources and delivering services in rural areas. The study of the organization of southern non-metropolitan counties for the delivery of services is part of a regional project called "Analysis of Structural and Organizational Change in Rural Counties of the South" or S-209. An important phase of the S-209 project was to study selected counties to determine the extent to which the local rural residents were tied into the complex system of organizations and associations designed to assist with problems related to efforts to bring about desired change. A connectedness index was developed to reflect the quality of living in non-metropolitan counties in 6 states without the usual expensive and time consuming personal interviews. Connectedness means having ties to people in positions of responsibility over resources needed to conduct one's activities most effectively for the benefit of self, family, and community. Connectedness implies knowing people in agencies and organizations dealing with essential areas influencing the quality of living: (1) physical; (2) institutional; (3) political; (4) financial; (5) informational; and (6) general feeling of adequate access. For each of these areas, one or more measures were developed, or obtained from other sources, and various ways of combining the values of these measures were considered. Each item was treated equally and was examined to determine if a high value was indicative of greater connectedness. Contradictory results indicate the need for further study of this issue. (ALL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED331649

AN INDEX OF SOCIAL CONNECTEDNESS FOR NON-METRO COUNTIES IN SIX SOUTHERN STATES

by

Charles L. Cleland

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

_____

_____

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

RC017676

AN INDEX OF SOCIAL CONNECTEDNESS FOR NON-METRO COUNTIES IN SIX SOUTHERN STATES[1]

Charles L. Cleland[2]

Introduction

Social indicator development has a long history but the great fad that occurred during the 60's and 70's has cooled. As I recall, that was a period when social researchers were terribly impressed with the increasing capacity of computers to store data and to manipulate such data with great speed. There seemed to be no limit to what one might expect from the computers. There was talk of data bases that would contain every conceivable type of information about rural places and don't worry about its immediate usefulness. Put the data in because we may find a use for it later. It didn't take long for some to discover that there really were limits on what could be stored and that the contents of a data base needed to be tailored to the type of indicator desired.

Since those days computer memories have expanded phenomenally and the limitation of storage space is no longer a concern for all practical purposes. The search for an indicator that reduces the quality of rural living to a single number, however, continues. The S-209 Technical Committee has made a stab at such an indicator in connection with its study of the organization of southern non-metropolitan counties for the delivery of services.

Background

The S-209 regional project is the most recent in a series of projects which have been concerned with rural poverty and the quality of living in southern non-metropolitan counties.[1] These projects have shifted from simply trying to describe the living circumstances of the residents of low-income rural areas; to the identification of individual adaptations to changing conditions; to describing the local social organization and its relation to the low-income conditions; to determining the manner in which local organizations develop around locally identified problems; and, currently, to measure the extent to which residents of rural areas have access to the resources needed to bring about desired change.

An important phase of the S-209 project was to intensively study selected counties to determine the extent to which the local rural residents were tied into the complex system of organizations and associations that are designed to assist in the resolution of problems related to efforts to bring about desired change. For such intensive study there needed to be some criteria set for county selection. It was in the effort to develop such criteria that the "connectedness index" was developed.

---

[1]Paper prepared for presentation at the meeting of the Southern Rural Sociological Association, Little Rock, Arkansas, February 6, 1990

[2]Professor of Rural Sociology, University of Tennessee, Knoxville.

The Connectedness Index

For the term "connectedness" the committee is indebted to a worker in a mountainous section of Tennessee who has dedicated herself to assisting the citizens in small communities in that area to more adequately deal with their problems.[2] She became aware that in spite of the willingness of local people to work hard and of their possession of all of the desirable characteristics of peaceful mountain folk and a desire to contribute to the well-being of the larger society, there were very narrow limits to what they could do without connections to groups and agencies outside their own communities. She was concerned that the relationship not be one of dependency or welfare but one in which there could be a partnership with mutual benefits. Defining what the isolated rural residents had to offer the big city dwellers has been one of her challenges. One principal element she identified was the opportunity to help "sophisticated" (and often wealthy) urbanites become more intimately aware of the sensitiveness and quality of at least some rural residents and of the circumstances of their living with so few of the amenities that are taken for granted by many urbanites.

Connectedness, then, means having ties to people in positions of responsibility over resources needed to conduct one's activities most effectively for the benefit of self, family and community. In our present complex society this means knowing people in agencies and organizations that have, as at least part of their mission, responsibility for assisting in the resolution of local problems whether these have to do with economic, social, political, spiritual, environmental or other areas of life.[3]

For purposes of constructing an index, the research committee set out to list what might be considered the essential areas of life that influence the quality of living. Maslow's heirarchy was considered as one guide to what should be included in a list of essentials but the list included a lot of detailed items that were a little difficult to place in that heirarchy. A rather lengthy list was developed which then had to be organized into broader categories. Most of the broad areas so identified were not currently being measured directly (some were simply not amenable to direct measurement) so the search was on for proxy measures. The final list of broad areas of access included the following:

PHYSICAL

INSTITUTIONAL

POLITICAL

FINANCIAL

INFORMATIONAL

GENERAL FEELING OF ADEQUATE ACCESS

For each of these areas one or more measures were either developed or obtained from other sources.[4]

Physical Access

It was assumed that the control or responsibility for many of the types of resources needed to bring about desired change is concentrated in metropolitan areas. It was further assumed that physically getting to the metropolitan areas from rural counties ordinarily was most effectively accomplished by automobile and that the interstate system of highways is normally the best route for getting into a metropolitan center. The measure designed to reflect physical access to metropolitan centers and the organizational resources located there was labeled "proximity to metropolitan areas via interstate highways."

The counties were classified on a rough scale of 1 to 6 with "1" being part of the metropolitan area, "2" being immediately adjacent and having an interstate through the county, "3" being adjacent but no interstate, "4" having an interstate going through but not being adjacent to a metro county, "5" being next to a county that has an interstate, and "6" being so isolated that one must go through another county to get to one with an interstate.[5]

Institutional

Three measures are included under the institutional heading: the ratio of those with a lot to those with little forma education; the percentage of the labor force employed in retail trade; and the percentage of the labor force employed in professional services. The assumption here is that those who have experience with ever more sophisticated formal organizations have the greater number of "connections" with centers which control various types of resources. The data for each measure was obtained from the 1980 Census of Population.

High/Low Education Ratio: This measure is the ratio of the number of people over 25 years of age in the county population who have completed four or more years of college to the number completing fewer than five years of formal education. The rationale for this measure is that those who have gone through college have not only been made intellectually aware of the existence of agencies and organizations that control resources but they have also experienced dealing with increasingly complex organizational structures and the people who populate them. Thus, the higher the ratio of those with a college education to those who are scarcely literate in the population, the greater the ease with which resources for local development can be located and obtained.

Percent Employed in Retail Services: This measure is simply the percentage of those in the labor force employed in jobs selling goods and/or services to the public. The assumption here is that those who are so employed have more or less regular contact with the suppliers of the goods/services that they sell as well as with persons in agencies involved in their regulation. They also will be in touch with others who are engaged in providing related services in the local area and so have access to information about sources beyond the local community.

Percent Employed in Professional Services: This measure is simply the percentage of those in the labor force employed in occupations classified as professional by the Bureau of the Census. Here the assumption is that those who are engaged in professional activities are likely to be broadly educated but also will be members of professional organizations and in touch with

regulatory agencies that give them a broad set of contacts relative to resources that might be used to bring about desired change. The presence of professionals also suggests that there must be organizational structures within which they operate giving local people experience in formal service organizations primarily those which deal in health, educational, legal and ministerial activities.

Political

The percentage of the labor employed in public services was used as the indicator of connectedness to political sources of power. This measure was selected partly because we could not find a count of the number of politicians in a given locality or a measure of the strength of those that are there. One very influential politician can obtain access to much more in terms of resources for development than can a number who have little influence. A case in point is Representative Jamie Whitten of Mississippi. The assumption here is that people employed in public agencies possess information on the availability of resources not known to others and the higher the percentage so employed, the greater the variety of governmental sources that are known about.

Financial

Development always involves the utilization of financial resources in one way or another so contacts with centers which have control of financial resources is very important. Here the term is thought of in the narrower sense of the word, however, and local access to money which could provide the basis for leveraging outside funds was the guide to the proxys selected.

Median Family Income: Median family income is seen as a measure of the economic resources that the local families have direct control over. This median says nothing about the manner in which local residents go about using the funds collectively but median family income is a base on which efforts to bring about change could be built. For a given county the median might be a little difficult to interpret as a base because it does not address the amount of wealth that has been accumulated over time. At the same time the median provides a basis for comparison between counties that is meaningful.

Persistent Poverty: This is a negative indicator of access to financial resources for nonmetropolitan counties. The counties having this designation "had per capita incomes in the bottom quintile of all U. S. Counties in 1950, 1959, 1969, and 1979."[3] This measure differs from the median family income for a given year in that it identifies a condition that has existed for some time and suggests that there has been little opportunity for the accumulation of substantial amounts of wealth by the residents.

---

[3]Bender, Lloyd D., et al., The Diverse Social and Economic Structure of Nonmetropolitan America. Agriculture and Rural Economics Division, Economic Research Service, U. S. Department of Agriculture, Rural Development Research Report No. 49, September, 1985, p.12.

Informational

It has been said that information is power but it may be more correct to say that information represents potential power. If it is not used, it does not have power. In a given community how many people have that information is an indication of its power potential. Given the present state of information distribution systems, national and international news (information) is often more accessible than is local news. One of the most effective means of getting news distributed locally is to have a locally published newspaper. The presence of one or more such papers is the measure used in this index to represent the informational dimension. The basic source for this information is the Census of Business. That source was supplemented by the respective state extension service's list for their mailing of news releases.

General Sense of Access to Resources

Two measures that were available but did not fit into any of the specific categories above were felt to be important but very indirect indicators of connectedness. These have to do with the results of conscious decisions made by residents of the area about living in the area.

Population Change, 1980-1985: Given the freedom of movement that people in the United States have as to their place of residence, the change in the number of residents from one time period to another is a clear indicator of the extent to which local people feel they have access to needed resources as compared with their perceptions of what is available elsewhere. Their is certainly a strong economic element in decisions to move but other factors such as political climate, perception of quality of educational opportunities, proximity of close relatives, religious concerns, recreational interests, and the physical climate can also play a part.

Retirement Dependent: This is another classification developed by the Economic Research Service of USDA intended to represent the extent to which the local economy is dependent on the income of retirees. Where such dependency is relatively high, it indicates that those with independent economic resources have chosen to locate there because of the availability of the types of services and conditions deemed desirable. For use in the Connectedness Index retirement dependency is interpreted as an indicator of the presence of people with experience and ties to other areas that can be used to evaluate local conditions and serve as a basis for proposing changes in the local community. Along with the economic resources these retirees bring somewhat higher levels of formal education and organizational experience and time to devote to causes felt to be worthwhile.

Calculation of the Index

Consideration was given to various ways in which the values from each of these measures might be combined. Without elaboration, the decision was made by the Technical Committee to weigh each item equally since little justification could be found for doing otherwise. Each item was examined to determine if a "high" value was indicative of greater connectedness or the reverse. The distribution of item values was then examined and cutting points selected that divided the counties into three categories as nearly equal as possible except in the case of the ERS classifications of persistent poverty

or retirement dependent. Persistent poverty was felt to be a negative indication of connectedness while being classified as retirement dependent was seen as positive for connectedness. The cutting points used are in the table below (Table 1).

For each element in the "poor" (low) category, a score of -1 was assigned. For each element in the "good" (high) category, a score of +1 was assigned. "Fair" (medium) was assigned a score of zero. The index value then was the sum of the values for each element for a possible range of -9 to +9 for the ten items. The persistent poverty element did not have a +1 and the retirement dependent did not have a -1. The actual range of values was from -9 to +8 for the non-metro counties in the six states.[8]

TABLE 1
CONNECTEDNESS INDEX ELEMENT CUTTING POINTS

Element	Poor (Low)	Fair (Medium)	Good (High)
Metropolitan access via interstate highway	5 or 6	3 or 4	2
Hi/Lo Education [No. of adults with four or more years of college to number with fewer than five years of school]	<1.00	1.00-1.49	1.50+
Percent employed in retail trade of all employed	<12.00	12.00-13.99	14.00+
Percent employed in professional and related services of all employed	<16.00	16.00-19.99	20.00+
Percent employed in public service of all employed	<4.00	4.00-4.99	5.00+
Median family income, 1979	<$14,000	14,000-15,999	16,000+
Persistent poverty	Yes	No	-----
Number of local newspapers	None	1 or 2	3+
Percent population change, 1980-1985	<+2.00	2.00-5.99	6.00+
Retirement dependent	-----	No	Yes

A test of the validity of the Connectedness Index

Two counties in Tennessee were selected for more intensive study based on their scores on the Conncetedness Index. One had a score of +6 and the other a score of -6. Both are in the middle area of the state and are separated by one other county.

It was intended that the Connectedness Index reflect the quality of living in these non-metropolitan counties without have to go through the usual kind of personal interviews which have become so expensive and time consuming. A very legitimate question arises as to whether the scores of the index do or do not give a reasonable approximation of measurement using field methods to measure the quality of living. The field study in counties with rather extreme values on the index was partly intended to check the reasonableness of the index values. First, is the quality of living as perceived by the local residents significantly different in the two counties? Second, do the residents of the two counties differ in their awareness of connections to resource persons or agencies that could be used to bring about desired change?

An interview schedule of questions was developed by the technical committee of the regional project which included a series of questions about the quality of various services deemed important in determining the quality of living in current North American culture. Sixteen areas were identified as follows:

1. Shelter (housing)
2. Food/Clothing/Housewares (availability of a accessibility to retail outlets for)
3. Work/Employment/Avocation (opportunities for earning income)
4. Transportation (ease of getting to and from places for needed goods and services)
5. Communication (means for keeping in touch with family, friends, the community and the world)
6. Health (means for dealing with health problems: personnel and facilities)
7. Education (opportunities for obtaining that which is desired)
8. Public Safety (safety of self and family from threats to person, possessions and livelihood)
9. Recreation/Entertainment (TV, movies, concerts, plays, sports, parks, etc.)
10. Water (quantity and quality)
11. Environment (hazardous material, wildlife, pollution)
12. Religion/Church (opportunities and activities, broadcasts and literature)
13. Legal Services (quality and quantity)
14. Insurance (cost and quality of)
15. Social Interaction (with family, friends, clubs, reunions, picnics, etc.)
16. Creative Expression (local interest in and opportunities for)

For each of these areas the respondent was asked to do three things. The first was to give a rating of the quality of the service in the local community. The second was to explain the basis for the rating given and what

might possibly be done make the situation better. The third was to indicate what person or agency might be in a position to bring about such improvement.

The rating of the service areas was a scale which ranged from "1" for poor or very dissatisfied to "7" for excellent or very satisfied. A "4" was specified as being the point of indifference. Every effort was made to get the respondent to give a numerical rating but the interviewwers were instructed to listen carefully and supply a number based on the verbal comments that the respondent seemed to be making if a number was not given.

It was assumed that most respondents would muse out loud as to the basis for the ratings given but if they did not, the interviewer was supposed to probe for such basis and what might possibly improve the situation. The respondent's comments were then supposed to supply the basis for asking who or what agency might be in a position to bring about such improvement.

Since this process was going to be repeated for each of the sixteen elements listed above, the question designers felt that sharing the categories into which the responses would be classified was appropriate both for keeping the interview within reasonable time bounds and for making the intent of the questioning as clear as possible. The card presented to the respondents looked much like this:

SOURCE OF ACTION FOR IMPROVEMENT

1. Self or other household adult.
2. Some individual outside household.
3. A particular agency, department or organization.
4. Some agency, department or organization but name unknown.

A fifth alternative was that nothing anybody could do would make the situation better. Such an alternative was not included on the card because it was assumed that every situation could be changed to suit the respondent better in some way and we were interested in learning what "connections" the respondent had or perceived that could help in bringing about such a change. The researchers intended these categories to be in the order of a perception of decreasing control over what could actually be done.

A comparison was made of the responses of the approximately 100 respondents in each county for each area of service. The differences between the two counties were tested for statistical significance using Chi-square with the .05 level being considered acceptable. The results of these comparisons are contained in Table 2.

TABLE 2
ASSOCIATION OF CONNECTEDNESS INDEX SCORE (COUNTY)
WITH QUALITY OF SERVICE RATINGS AND WITH SOURCE OF ASSISTANCE
FOR TWO TENNESSEE COUNTIES, 1989

	Service Area	Quality of Service	Source of Assistance
1.	Shelter	NS	**
2.	Food/Clothing/Housewares	*	**
3.	Work/Employment/Avocation	NS	**
4.	Transportation	NS	**
5.	Communication	**	**
6.	Health	**	**
7.	Education	*	**
8.	Public Safety	*	**
9.	Recreation/Entertainment	**	**
10.	Water	NS	*
11.	Environment	*	*
12.	Religion/Church	*	**
13.	Legal Services	*	**
14.	Insurance	*	**
15.	Social Interaction	*	**
16.	Creative Expression	**	**

NS = Not Significant
* = Significant at .05 level
** = Significant at .01 level

Interpretation

For twelve of the service areas the evaluation of the quality differed significantly between the two counties. The direction, however, was exactly opposite that which was expected. The respondents in the county with the lower Connectedness Index value rated each of the services higher in quality than did those in the county with the higher index value! Is it possible that the overall quality of living is better in the county with the lower index score?

Examination of the explanations given by the respondents as the basis for their ratings sheds a little light on this apparent contradiction. Many of the respondents in the low-index county refused to give any basis at all for their ratings. The interviewers, who were themselves residents of the county, commented that they were generally unable to get the respondents to say what made the service so satisfactory or to come up with anything that might make the service better. There was a difference of opinion as to whether this unresponsiveness could be attributed to an unwillingness (inability?) to give serious thought to the questions asked, or to a reluctance to say anything that might sound critical of anything going on in their communities.

Given the lack of a basis for the ratings, many of which were "very satisfied" in the low-index county, it should come as no surprize that many of the respondents then said that nothing anyone could do would make the situation better. Change was not needed and there may have been some fear that change would make matters worse rather than better. As a result the indications of connectedness were significantly different between the two counties for each of the sixteen areas of service. This time the direction was as expected with the low-index county consistently tending toward a lack of control or that anyone or any agency could do something to make the situation better.

Conclusion

The two counties selected to provide a test of the validity of the Connectedness Index have proven to be very different in their subjective evaluations of the quality of services in their respective counties. The direction of the assessment was the opposite of that which the Connectedness Index values would suggest, however, making interpretation of the index values unclear. Even the consistent indication of a lack of "connections" which might be used to make the situation in each of the service areas better in the low-index county is suspect since there seemed to be little vision as to what might be done to make matters better. Further analysis of the data is needed to be able to arrive at some more definite conclusion.

1.These projects were as follows:

S-44, Factors in the Adjustment of Families and Individuals to Changing Conditions in Low Income Rural Areas of the South

S-61, Human Resource Development and Mobility in the Rural South

S-79, Rural Development and the Quality of Life in the Rural South

S-120, Social Organization for Development of Low-Income Counties

S-158, Improving Community Services in Nonmetropolitan Counties in the South

S-209, Analysis of Structural and Organizational Change in Rural Counties of the South

2.Marie Cirrillo, is a former Catholic nun who had worked in the Chicago area with migrants from Appalachia. It occurred to her and a number of others in her order that working with such people **before** the migrated might be a more effective way of dealing with many of the problems people in Appalachia faced. She has been working in an isolated area of Campbell and Claiborne Counties known as Model Valley for some purposes. More specifically she has worked in Clairfield and in the Roses Creek community.

3.This concept can be applied to the leaders of religious and governmental organizations as well as to residents of isolated rural areas. Part of the responsibility of the religious leader is to help members of the organization have a healthy relationship with the supreme being by whatever name and with other members of one's society. Helping members get into meaningful relationships with those who are not so "burdened" with worldly goods can be very beneficial to developing a proper perspective on the importance of relying on the supreme being rather than on one's possessions. Similarly, government officials need to have an appreciation for the effectiveness of the programs for which they are responsible in serving the needs of all who are supposed to benefit. Connection with groups or representatives of organizations which might be characterized as "grass roots" could aid greatly in assessing that effectiveness.

4.The committee is entirely aware that these categories are not mutually exclusive and may not even be at the same level of abstraction. The decision was made to go along with them in spite of such limitations because the time contraint to develop a more sophisticated list was not available. It is true that in the "real world" the connections are not always nicely separate but conceptually a framework should be possible that accomplishes that end.

5.The classification is less than perfect for a number of reasons including that highways from a county adjacent to a metro county may be excellent but not classified as interstate; or that an interstate may go through one corner of the county but either have no interchange in the county or the highway may not be the best connector to the closest metropolitan area. The location of interchanges was not taken into account.

6. There was some feeling that percent black should have been included as one element of the index. This was not done but a correlation of percent black with the Connectedness Index scores was run for each state and the total. There was significant correlation (.05 level) for Alabama, South Carolina and the six states combined.